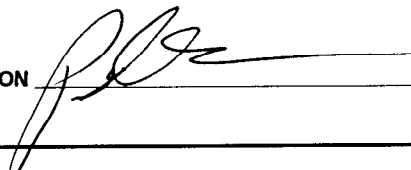
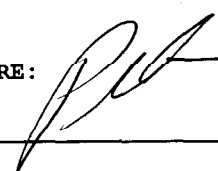


NEW MILLENNIUM PROJECT CONFIGURATION CHANGE REQUEST

PROGRAM <u>EO-1</u> CCR NO. <u>0014</u> DATE INITIATED <u>06/18/98</u>		TITLE CHANGES TO EO-1 GPS ICD-25 ORIGINATOR <u>D. Quinn/GSFC</u> ORIGINATOR'S CHG. NO. _____ SPONSOR/CODE <u>D. Quinn/EO-1 GPS</u> PHONE <u>x6681</u>																																			
EFFECTIVITY ITEM: <u>GPS</u> S / N _____ ITEM: _____ S / N _____ ITEM: _____ S / N _____		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 30%;">CHANGE CLASS</th> <th style="width: 10%;">I</th> <th style="width: 10%;">II</th> <th colspan="4">TYPE OF CHANGE</th> </tr> <tr> <td>PRELIMINARY</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td>MILESTONE</td> <td><input type="checkbox"/></td> <td>INTERFACE</td> <td><input checked="" type="checkbox"/></td> <td>SOFTWARE</td> <td><input type="checkbox"/></td> </tr> <tr> <td>FORMAL</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td>DOCUMENT</td> <td><input checked="" type="checkbox"/></td> <td>POWER</td> <td><input type="checkbox"/></td> <td>OTHER</td> <td><input type="checkbox"/></td> </tr> <tr> <td></td> <td></td> <td></td> <td>COST</td> <td><input type="checkbox"/></td> <td>WEIGHT</td> <td><input type="checkbox"/></td> <td></td> <td><input type="checkbox"/></td> </tr> </table> DOCUMENTS OR SOFTWARE AFFECTED <u>EO-1 ICD-025</u>		CHANGE CLASS	I	II	TYPE OF CHANGE				PRELIMINARY	<input type="checkbox"/>	<input type="checkbox"/>	MILESTONE	<input type="checkbox"/>	INTERFACE	<input checked="" type="checkbox"/>	SOFTWARE	<input type="checkbox"/>	FORMAL	<input type="checkbox"/>	<input type="checkbox"/>	DOCUMENT	<input checked="" type="checkbox"/>	POWER	<input type="checkbox"/>	OTHER	<input type="checkbox"/>				COST	<input type="checkbox"/>	WEIGHT	<input type="checkbox"/>		<input type="checkbox"/>
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PROBLEM The attached Preliminary Interface Revision Notice (PIRN) to EO-1 ICD-025 EO-1 S/C TO GPS NAVIGATION SENSOR Interface Control Document (ICD) provides for changes to the Interface document. This PIRN includes suggested changes that will be incorporated as an Interface revision and will be officially documented as such. The PIRN will become an official Interface change once the EO-1 project Configuration Control Board (CCB) chairman signs this CCR and the attached PIRN.																																					
PROPOSED SOLUTION Approve the attached PIRN 001 to EO-1 ICD-0025 Baseline issue by the EO-1 Level II Configuration Control Board (CCB). The signed off PIRN will serve as the official approval of changes to this ICD. Future changes will be initiated by submittal of Configuration Change Requests (CCRs) and Preliminary Interface Revision Notices (PIRNs) for CCB approval. This document is maintained by the EO-1 Configuration Management Office (CMO).																																					
BOARD ACTION APPROVE <input checked="" type="checkbox"/> APPROVE WITH CHANGE <input type="checkbox"/> DISAPPROVE <input type="checkbox"/> WITHDRAW <input type="checkbox"/>	APPROVAL LEVEL REQUIRED LEVEL I HQS <input type="checkbox"/> LEVEL II GSFC <input checked="" type="checkbox"/> LEVEL III <input type="checkbox"/>	CRITICALITY LEVEL EMERGENCY <input type="checkbox"/> URGENT <input type="checkbox"/> ROUTINE <input checked="" type="checkbox"/>	PROCUREMENT CHANGE ORDER CLASSIFICATION <table style="width: 100%;"> <tr> <td>ROUTINE</td> <td>URGENT</td> <td>EMERGENCY <input type="checkbox"/></td> </tr> <tr> <td>OPTION 1 <input type="checkbox"/></td> <td>OPTION 1 <input type="checkbox"/></td> <td></td> </tr> <tr> <td>OPTION 2 <input type="checkbox"/></td> <td>OPTION 2 <input type="checkbox"/></td> <td></td> </tr> </table>	ROUTINE	URGENT	EMERGENCY <input type="checkbox"/>	OPTION 1 <input type="checkbox"/>	OPTION 1 <input type="checkbox"/>		OPTION 2 <input type="checkbox"/>	OPTION 2 <input type="checkbox"/>																										
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COMMENTS <div style="display: flex; justify-content: space-between; align-items: flex-end;"> <div style="width: 60%;"> CHAIRPERSON  </div> <div style="width: 35%;"> DATE <u>22 Jun 98</u> </div> </div>																																					

GODDARD SPACE FLIGHT CENTER		1. PAGE 1 OF 3																																				
PRELIMINARY SPECIFICATION CHANGE NOTICE (PSCN) No. _____ or PRELIMINARY INTERFACE REVISION NOTICE (PIRN) No. 001		2. INIT. DATE: 6/18/98																																				
		3. CONTRACT NUMBER																																				
4. ASSOCIATED CONTROL NUMBERS: EO-1CCR 0014	5. CI'S AFFECTED: SC TO GPS ICD-025	6. DOCUMENT NUMBER: REVISION:																																				
7. DESCRIPTION OF CHANGE:																																						
<p>1. Change Section 3.1.1 <u>Power Conditioning Unit</u>:</p> <p><u>From</u>: At the orbital average 10 W output level, the PCU will dissipate 2 W. At the maximum 16 W output level (at system power up), the PCU will dissipate 3.2 W.</p> <p><u>To</u>: At the orbital average 10 W output level, the PCU will dissipate less than 4 W. At the maximum 16 W output level (at system power up), the PCU will dissipate less than 6 W.</p> <p>2. Change Table 3-1 <u>PCU Input Connector (J1) Signal Definition</u>:</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;"><u>From</u>: Pin</th> <th style="text-align: left;"><u>Signal name</u></th> <th style="text-align: left;"><u>Signal Definition</u></th> </tr> </thead> <tbody> <tr> <td>06</td> <td>Spare</td> <td></td> </tr> <tr> <td><u>To</u>: 06</td> <td>+28 VDC (+/-7VDC)</td> <td>Main Power Input from Spacecraft Bus</td> </tr> <tr> <td><u>From</u>: 09</td> <td>Spare</td> <td></td> </tr> <tr> <td><u>To</u>: 09</td> <td>Return</td> <td>Main Power Return to Spacecraft Bus</td> </tr> </tbody> </table> <p>3. Change Table 3-5 <u>GPS RF Cable Lengths and Connectivity</u></p> <p><u>From</u>:</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;"><u>From</u></th> <th style="text-align: left;"><u>To</u></th> <th style="text-align: left;"><u>Length</u></th> <th style="text-align: left;"><u>Serial #</u></th> <th style="text-align: left;"><u>Cable Type</u></th> </tr> </thead> <tbody> <tr> <td>Antenna # 1 (Serial No. TBD)</td> <td>P/SA J4 (A1)</td> <td>12' 0"</td> <td>TBD</td> <td>0.190 Gore</td> </tr> <tr> <td><u>To</u>:</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Antenna # 1 (Serial No. TBD)</td> <td>P/SA J4 (A1)</td> <td>147"</td> <td>1191971</td> <td>0.190 Gore</td> </tr> </tbody> </table>				<u>From</u> : Pin	<u>Signal name</u>	<u>Signal Definition</u>	06	Spare		<u>To</u> : 06	+28 VDC (+/-7VDC)	Main Power Input from Spacecraft Bus	<u>From</u> : 09	Spare		<u>To</u> : 09	Return	Main Power Return to Spacecraft Bus	<u>From</u>	<u>To</u>	<u>Length</u>	<u>Serial #</u>	<u>Cable Type</u>	Antenna # 1 (Serial No. TBD)	P/SA J4 (A1)	12' 0"	TBD	0.190 Gore	<u>To</u> :					Antenna # 1 (Serial No. TBD)	P/SA J4 (A1)	147"	1191971	0.190 Gore
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PREPARED BY: S. Schneider/442		ORIGINATING ORGANIZATION APPR:																																				
HST CCB ACTION <input checked="" type="checkbox"/>		SIGNATURE: 																																				
APPROVED: <input checked="" type="checkbox"/>		DATE: 6/22/98 MINUTES No:																																				
DISAPPROVED: <input type="checkbox"/>																																						

**GODDARD SPACE FLIGHT CENTER
EO-1**

PSCN _____
PIRN 001

Associated control number: EO-1 CCR-0014

CI's affected: SC to GPS ICD -025

Date: June 18, 1998

Page 2 of 3

<u>From</u>	<u>To</u>	<u>Length</u>	<u>Serial No</u>	<u>Cable Type</u>
<u>From:</u> Antenna # 2 (Serial No. TBD)	P/SA J3(A2)	12' 0"	TBD	0.190 Gore
<u>To:</u> Antenna # 2 (Serial No. TBD)	P/SA J3(A2)	147"	1191972	0.190 Gore
<u>From:</u> Antenna # 3 (Serial No. TBD)	P/SA J2(A3)	12' 0"	TBD	0.190 Gore
<u>To:</u> Antenna # 3 (Serial No. TBD)	P/SA J2(A3)	147"	1191973	0.190 Gore
<u>From:</u> Antenna # 4 (Serial No. TBD)	P/SA J1(A4)	12' 0"	TBD	0.190 Gore
<u>To:</u> Antenna # 4 (Serial No. TBD)	P/SA J1(A4)	147"	1191974	0.190 Gore
<u>From:</u> P/SA J5	RPU J11	3' 6"	TBD	RG-142
<u>To:</u> P/SA J5	RPU J11	45"	1191965	0.190 Gore
<u>From:</u> P/SA J6	PU J9	3' 6"	TBD	RG-142
<u>To:</u> P/SA J6	RPU J9	45"	1191966	0.190 Gore
<u>From:</u> P/SA J7	PU J7	3' 6"	TBD	RG-142
<u>To:</u> P/SA J7	RPU J9	45"	1191967	0.190 Gore

<u>From</u>	<u>To</u>	<u>Length</u>	<u>Serial No</u>	<u>Cable Type</u>
<u>From:</u> P/SA J8	PU J5	3'6"	TBD	RG-142
<u>To:</u> P/SA J8	RPU J9	45"	1191968	0.190 Gore

4.Change Section 6.1 Power Sequence:

From: 6. Set RPU configuration for EO-1 mission via packet 35 hex.

To: 6. Set RPU configuration for EO-1 mission via packet 35 & **EO [Hex]**.

From: 7. Warm start: Transmit valid almanac to RPU via packet XX (skip if cold start).

To: 7. Warm start: Transmit valid almanac to RPU via packet **38 [Hex]** (skip if cold start).

From: 8. Warm start: Transmit valid S/C ephemeris to RPU via packet XX (skip if cold start).

To: 8. Warm start: Transmit valid S/C ephemeris to RPU via packet **E7 [Hex]** (skip if cold start).

From: 9. Warm start: Transmit valid current time to RPU via packet XX (skip if cold start).

To: 9. Warm start: Transmit valid current time to RPU via packet **2E [Hex]** (skip if cold start).

5.Delete : Section 8.1.1 Fuses and Protection "The spacecraft current to the RPU will be limited through a 2-A fuse."

6.Change: Section 3.2.1 Power Conditioning Unit:

From: "...male connector (PN 311P407-1P-B-15)....

To: "...male connector (PN 311P40**9**-1P-B-15)....

From: "...female connector (PN 311P407-2S-B-15)....

To: "...female connector (PN 311P40**9**-2S-B-15)....

5.Delete: Section 1.4 Requirement Status

6. Change the following in Section 3.2.3 Preamplifier/Splitter Assembly:

J1 to J4

J2 to J3

J3 to J2

J4 to J1

7.Change the following in Section 3.4 Electrical Isolation:

From: The GPS shall maintain isolation greater than 1 MW....

TO: The GPS shall maintain isolation greater than 1 **megaohm**...

8.Section 6.1 Power on Sequence: Item No. 5:

From: “When power is applied...”

To: “After the power-on pulse...”

9.Add: The following to Section 7.1 Hardware:

GSE

roof antenna

cable and amplifiers

hat couplers (2)

GPS simulators (2)